

The University of Leeds**EXTERNAL EXAMINER'S REPORT**

ACADEMIC YEAR: 2011– 2012

Part A: General Information**Subject area and awards being examined**

Faculty / School of:	Biological Sciences
Subject(s):	<i>Biology</i>
Programme(s) / Module(s):	Biology, Biology (Ind), Biology (Int)
Awards (e.g. BA/BSc/MSc etc):	B.Sc.

Completed report

The completed report should be attached to an e-mail and sent as soon as possible, and no later than six weeks after the relevant meeting of the Board of Examiners, to exexadmin@leeds.ac.uk.

Alternatively you can post your report to: **Head of Academic Quality and Standards**
Academ ic Quality and Standards Team
Room 12:81, EC Stoner Building
The University of Leeds, Leeds LS2 9JT

Part B: Comments for the Institution on the Examination Process and Standards**Matters for Urgent Attention**

If there are any areas which you think require urgent attention before the programme is offered again please note them in this box

The issue of variation in mean marks among modules (discussed in detail below) requires immediate attention because it is not easy to resolve and the decision reached will impact on assessment of the cohort of students graduating in 2013.

Only applicable in first year of appointment

Were you provided with copies of previous relevant External Examiners' reports and the response of the School to these?

N/A

For Examiners completing their term of appointment

Please comment on your experience of the programme(s) over the period of your appointment, remarking in particular on changes from year to year and the progressive development and enhancement of the learning and teaching provision, on standards achieved, on marking and assessment and the procedures of the School

This is the last of 5 years in the role of External Examiner for the Biology programme. I would like to make the following observations about this period:

1. The academic staff members contributing to the Biology programme have done a great job of maintaining a broad, challenging and rewarding course, and maintaining an excellent student experience, through very difficult times. They are to be particularly commended for ensuring that the stresses they have sometimes experienced in their professional environment have not been allowed to have a negative impact on undergraduate teaching quality.
2. The standard of the best students has been consistently excellent.
3. There have been progressive improvements in the management of the assessment process and the organisation of the external examiners' visits and examination board meetings. The current team, led by _____ and _____ does an excellent job.
4. My requests in early years for an informative analysis of marks led to the introduction of a system in 2011, developed by _____. This year, the analysis was available at the start of my visit and was very helpful. This is an example of good practice which could usefully be adopted by other programmes.
5. The mark analysis confirms the existence of considerable variation in mean module marks, after allowing for variation in the cohorts of students taking different modules. This issue is discussed below and is a cause for concern. It has persisted through my period as external examiner. I think it can be minimised by adjustments to assessment practice but cannot be removed entirely. Therefore, I recommend that a policy should be put in place to deal with serious departures.

I am delighted to see that new staff are being appointed who will contribute to the maintenance and development of an excellent degree programme and I wish all concerned well for the future. On the other hand, I am concerned that a lack of mutual trust and respect among units, and among levels in the management hierarchy within the Faculty of Biological Sciences still inhibits effective sharing of good practice and so realisation of the full potential that exists in Leeds.

Standards

1. Please indicate the extent to which the programme Aims and Intended Learning Outcomes (ILOs) were commensurate with the level of the award

- *The appropriateness of the Intended Learning Outcomes for the programme(s)/modules and of the structure and content of the programme(s);*
- *The extent to which standards are appropriate for the award or award element under consideration.*

The Aims and ILOs were appropriate for a BSc degree in Biology. They were comparable with similar programmes in research-led universities in the UK. The structure of the programme ensures a broad base while providing good opportunities for students to specialise in their final year.

2. Did the Aims and ILOs meet the expectations of the national subject benchmark (where relevant)?

- *The comparability of the programme(s) with similar programme(s) at other institutions and against national benchmarks and the Framework for Higher Education Qualifications.*

All major areas identified in the subject benchmark are covered at Levels 1 and 2 of the programme. The programme structure is similar to those in comparable institutions, requiring students to develop a broad base at the start of the course but allowing increasing choice in later years.

3. Please comment on the assessment methods and the appropriateness of these to the ILOs

- *The design and structure of the assessment methods, and the arrangements for the marking of modules and the classification of awards;*
- *The quality of teaching, learning and assessment methods that may be indicated by student performance.*

The range of teaching and assessment methods is excellent. The balance between examination and course-work assessment is appropriate across the course as a whole. Possible reservations about the potential for students to choose module combinations that minimise their requirement to sit unseen examinations are discussed below.

4. Were students given adequate opportunity to demonstrate their achievement of the Aims and ILOs?

- *The academic standards demonstrated by the students and, where possible, their performance in relation to students on comparable courses;*
- *The strengths and weaknesses of the students as a cohort.*

The students can demonstrate a wide range of knowledge and skills through examinations of varied format and a variety of forms of course-work assessment. In all areas, the best students achieve very high standards. The 'tail' of students with low exit grades that was a concern last year was less evident this year.

5. For Examiners responsible for programmes that include clinical practice components, please comment on the learning and assessment of practice components of the curriculum

N/A

6. Please comment on the nature and effectiveness of enhancements to the programme(s) and modules since the previous year

It would be particularly helpful if you could also identify areas of good practice which are worthy of wider dissemination.

A 20 credit research project was re-introduced. This was partly to relieve the heavy load on staff associated with 40 credit projects but it can also provide a better option for some students, especially those who do not plan to continue in research. The module appears to have operated successfully. Although taken by a below-average cohort, some very good pieces of work were produced.

The structure of the options has been revised. The new structure is more readily understood and provides a good range of possible pathways for students whilst requiring them to maintain breadth.

7. Please comment on the influence of research on the curriculum and learning and teaching

This may include examples of curriculum design informed by current research in the subject; practice informed by research; students undertaking research.

The impact of research is clear in the cutting-edge material included in Level 3 modules and in the wide range of exciting project opportunities. The 'Advanced Topics' modules provide excellent introductions to the current literature and the skills need to access and interpret research publications.

For Examiners involved in mentoring arrangements

8. If you have acted as a mentor to a new External Examiner or have received mentor support please comment here on the arrangements

I have acted as mentor to the newly appointed external examiner for the Genetics programme, We met when we visited Leeds in March to speak to students and has contacted me at other times when unsure of the role. has needed little support but I hope my availability has been useful to

9. The University and its Schools provide guidance for External Examiners as to their roles, powers and responsibilities. Please indicate whether this material was sufficient for you to act effectively as an External Examiner.

- *Whether External Examiners have sufficient access to the material needed to make the required judgements and whether they are encouraged to request additional information.*

Yes, the guidance available is helpful and I have been able to access all of the material required.

10. Did you receive appropriate documentation relating to the programmes and/or parts of programmes for which you have responsibility, e.g. programme specifications or module handbooks, marking criteria?

- *The coherence of the policies and procedures relating to External Examiners and whether they match the explicit roles they are asked to perform.*

Yes. All of the information required was readily available either in hard copy or electronically.

11. Were you provided with all draft examination papers/assessments? Was the nature and level of the questions appropriate? If not, were suitable arrangements made to consider your comments?

I was provided with relevant draft examination papers. The time available to comment was short but adequate. I found it necessary to make only a very few suggestions for amendments, mainly to ensure that questions were unambiguous. The level was appropriate in all cases, so far as I could judge. Outline answers were helpful in making this judgement.

I was not provided with drafts of in-course assessments. I think it would be valuable for external examiners to see these proposed assessments in future (perhaps subject to some minimum contribution to the module mark), particularly in relation to the issue concerning variation in module mean marks.

12. Was sufficient assessed / examined work made available to enable you to have confidence in your evaluation of the standard of student work? Were the scripts clearly marked/annotated?

All Level 3 examination answers and student projects reports were available to me. On the basis of my sampling of these scripts, I am confident that appropriate standards were set. Scripts and project reports were generally annotated in a helpful way. Evidence of effective moderation of marks was patchy and my sample suggested that it did not meet the 10% requirement, probably because scripts were not annotated and initialled by moderators rather than a lack of moderation. The Faculty of Biological Sciences might consider the introduction of 'cover sheets' for sets of answers to particular questions on which moderation details can be recorded. Such cover sheets are in use in both and

I did not examine Level 2 scripts. This would be impractical in the time available.

Coursework answers were not available for assessment. I understand that copies are routinely made for a sample of marked scripts for each exercise that contributes to the final assessment. It would be helpful if these copies could be made available to external examiners in future in order to verify that appropriate standards are set and to aid in consideration of discretionary cases. In future, a progressive move to electronic marking may make it possible to retain copies of all marked assessments.

13. Was the choice of subjects for dissertations appropriate? Was the method and standard of assessment appropriate?

The range of subjects offered for the project modules is excellent. I understand that virtually all students obtain one of their top 3 choices of subject area. In general, projects are suitably challenging for the heavy weighting applied (40 credits in most cases). I read one report where the amount of work carried out and the intellectual content seemed very low, although the topic could have been taken much further. Assessment of this project highlighted a concern about the current criteria: an assessment focused on the quality of the report cannot easily reflect the variation in the level of challenge the project as conducted. The 'performance' mark is the major place where this can be considered. I recommend that the performance marking criteria should be reviewed.

An effective administrative system is in place to deal with cases where first and second markers disagree in their initial assessment of the report. This leads to mark adjustment by one or both markers, or occasionally to the involvement of a third marker. A current efficiency is in the written justification for any change of mark. I recommend that the module manager should not accept changes without adequate justification. A good test would be to imagine the student reviewing how his/her project was assessed and to consider whether they would be happy with the argument provided.

14. Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners? Were you able to attend the meeting? Were you satisfied with the recommendations of the Board?

I attended the exam board meeting on 20 June. The whole process ran very smoothly, I was satisfied with the outcomes. The timing of the meeting this year gave me adequate time to carry out my duties effectively. My only concern was that neither the Pro-Dean for Student Education nor the Director of Undergraduate Student Education attended. This sends an unfortunate signal, I believe.

15. Were appropriate procedures in place to give due consideration to mitigating circumstances and medical evidence?

Mitigating circumstances had been considered in advance of the examination board meeting. I was provided with a list of affected candidates and was able to satisfy myself that their degree classification was unlikely to be adversely influenced.

Other comments

Please use this box if you wish to make any further comments not covered elsewhere on the form

With the Zoology and Genetics external examiners, I met with a small group of current undergraduates in March. They were overwhelmingly positive about the course and the staff (both academic and support). They raised a few issues:

At Level 1, more explanation of the 'need to know' would be helpful for some modules.

At Level 2, more help in preparing for the style of examinations would be appreciated, because of the difficult transition from Level 1 MCQs. Students were also unhappy with the use of group-work marks for individual assessment, particularly in the Animal Physiology module. Demonstrators for some practical classes, specifically in bioinformatics, should be better prepared. Some felt that the experimental design and data analysis module should be a pre-requisite for the Level 3 40 credit project.

At Level 3, there had been a problem with the 'Bats' module examination paper. I looked at the potential impact of this on individual students and found no evidence that it influenced marks.

I asked students whether they thought a synthetic 'honours' exam was a good idea and they were positive about this potential addition.

After allowing for the cohorts of students taking different modules, there was considerable variation among modules in mean marks at both Levels 2 and 3. As noted above, this has been a persistent feature of the programme but it has been made more apparent by the introduction of appropriate analyses. Variation was particularly striking in Level 2 this year. Part of the variation is explained by high mean marks for modules without unseen examinations but this certainly does not explain all discrepancies. There are good educational reasons for variation in assessment format among modules. Every effort should be made to adjust marking criteria and marking practices in order to minimise variation among modules. However, this is unlikely to remove the variation completely and does not deal with variation once it has occurred. In some cases, a analysis of marks may suggest adjustments to, or exclusion of individual assessment components. However this is certainly not always the case.

I understand that the University regulations permit the adjustment of module marks by examination boards. I recommend that the Faculty of Biological Sciences should accept that principle of adjusting module marks to deal with serious discrepancies. It is probably not possible to provide a set of rules that would deal adequately with all eventualities. Therefore, I recommend that the identification of modules potentially requiring adjustment and proposals for the adjustments necessary should be made by the internal exam board, discussed with the relevant external examiner and then approved by the full examination board. It would, of course, be necessary to inform students. Both upward and downward adjustments should be possible, in fairness to the student cohort as a whole. Systems similar to that proposed operate in comparable institutions, including my own.

I recommend that this issue be discussed urgently so that the current set of Level 2 marks can be adjusted before they are used to determine the final results in 2013. This is because the potential effect on individual students could be as great as 4.6% of the overall Level 2 mark. The impact of variation among Level 3 modules on the cohort of students completing this year was not so great and I was satisfied that it did not influence classification.

I thank all concerned for excellent hospitality and particularly _____ and _____ for their excellent organisation.

External Examiner:

Programme Area: **BSc Biology**

Academic Year: **2011/12**

Date of Response: **10th August 2012**

Dear

Many thanks for all your efforts as External Examiner – your input over the last five years has been greatly appreciated, and has helped to maintain and improve the Biology programme. Our responses to your comments are detailed below.

Yours sincerely

Programme Leader

Matters for Urgent Attention

Comment: The issue of variation in mean marks among modules (discussed in detail below) requires immediate attention because it is not easy to resolve and the decision reached will impact on assessment of the cohort of students graduating in 2013.

After allowing for the cohorts of students taking different modules, there was considerable variation among modules in mean marks at both Levels 2 and 3. As noted above, this has been a persistent feature of the programme but it has been made more apparent by the introduction of appropriate analyses. Variation was particularly striking in Level 2 this year. Part of the variation is explained by high mean marks for modules without unseen examinations but this certainly does not explain all discrepancies.

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Response: We share the External Examiner's concerns about between module variation. In particular, two semester 1 level 2 modules had notably low marks this year (though this was not the case last year). This

highlights the problem of students failing to adapt rapidly to the examination process in level 2 (a move from multiple choice to essay questions).

Action: *This issue was discussed at an Academic Staff Meeting in the week after the Final Exam Board, attended by the Pro-Dean for Student Education, and in addition at a meeting held between the Exams Officer and Director of Undergraduate Student Education. The conclusion of these discussions was that University regulations did not permit adjustment of module marks after the Final Exam board, and thus that these marks would stand. The effect of low marks in these modules on the students' final degree classification will be modelled next year and the External Examiners informed. The consensus from the Academic Staff Meeting was that staff, where possible, prefer not to adjust module marks, but that this would be considered if problems of similar magnitude occur in future years. Next year module mark analysis will be carried out prior to the semester 1 exam meeting to highlight problems in advance. A number of changes will also be made to the 2 modules in question, including practice essays and model answers provided during lectures, and an increased weighting of the coursework component.*

Comments on completion of term of appointment

This is the last of 5 years in the role of External Examiner for the Biology programme. I would like to make the following observations about this period:

1. The academic staff members contributing to the Biology programme have done a great job of maintaining a broad, challenging and rewarding course, and maintaining an excellent student experience, through very difficult times. They are to be particularly commended for ensuring that the stresses they have sometimes experienced in their professional environment have not been allowed to have a negative impact on undergraduate teaching quality.
2. The standard of the best students has been consistently excellent.
3. There have been progressive improvements in the management of the assessment process and the organisation of the external examiners' visits and examination board meetings. The current team, led by [redacted] and [redacted], does an excellent job.
4. My requests in early years for an informative analysis of marks led to the introduction of a system in 2011, developed by [redacted]. This year, the analysis was available at the start of my visit and was very helpful. This is an example of good practice which could usefully be adopted by other programmes.
5. The mark analysis confirms the existence of considerable variation in mean module marks, after allowing for variation in the cohorts of students taking different modules. This issue is discussed below and is a cause for concern. It has persisted through my period as external examiner. I think it can be minimised by adjustments to assessment practice but cannot be removed entirely. Therefore, I recommend that a policy should be put in place to deal with serious departures.

I am delighted to see that new staff are being appointed who will contribute to the maintenance and development of an excellent degree programme and I wish all concerned well for the future. On the other hand, I am concerned that a lack of mutual trust and respect among units, and among levels in the management hierarchy within the Faculty of Biological Sciences still inhibits effective sharing of good practice and so realisation of the full potential that exists in Leeds.

Response: We thank the External Examiner for his comments, and are pleased that in his view the Biology programme has maintained quality, and that the management of assessment has improved. Point 5 is addressed above. We note his concerns about lack of trust within the Faculty, but feel that this will become less of an issue as we move forward post-restructuring.

Enhancements

Comment: A 20 credit research project was re-introduced. This was partly to relieve the heavy load on staff associated with 40 credit projects but it can also provide a better option for some students, especially those who do not plan to continue in research. The module appears to have operated successfully. Although taken by a below-average cohort, some very good pieces of work were produced. The structure of the options has been revised. The new structure is more readily understood and provides a good range of possible pathways for students whilst requiring them to maintain breadth.

Response: We agree. The 20 credit research project will be continued.

Draft examination papers

Comment: I was provided with relevant draft examination papers. The time available to comment was short but adequate. I found it unnecessary to make only a very few suggestions for amendments, mainly to ensure that questions were unambiguous. The level was appropriate in all cases, so far as I could judge. Outline answers were helpful in making this judgement.

I was not provided with drafts of in-course assessments. I think it would be valuable for external examiners to see the proposed assessments in future (perhaps subject to some minimum contribution to the module mark), particularly in relation to the issue concerning variation in module mean marks.

Response: We agree that some oversight by External Examiners for in-course assessments would be useful, particularly for modules which do not have examinations.

Action: *We will endeavour to provide details to the External Examiners of the in-course assessments for Leeds-based modules that do not have examinations, at the same time as exam papers*

Availability of assessed/examined work

Comment: All Level 3 examination answers and student projects reports were available to me. On the basis of my sampling of these scripts, I am confident that appropriate standards were set. Scripts and project reports were generally annotated in a helpful way. Evidence of effective moderation of marks was patchy and my sample suggested that it did not meet the 10% requirement, probably because scripts were not annotated and initialled by moderators rather than a lack of moderation. The Faculty of Biological Sciences might consider the introduction of 'cover sheets' for sets of answers to particular questions on which moderation details can be recorded. Such cover sheets are in use in both _____ and _____.

Response: We are confident that scripts were moderated according to Faculty guidelines. Initialling of our existing cover sheets is designed to evidence this, but clearly some second markers did not do this.

Action: *We will reiterate to second markings the importance of annotation and initialling scripts, and this will be checked when scripts are returned to the Undergraduate Teaching Office.*

Comment: Coursework answers were not available for assessment. I understand that copies are routinely made for a sample of marked scripts for each exercise that contributes to the final assessment. It would be helpful if these copies could be made available to external examiners in future in order to verify that appropriate standards are set and to aid in consideration of discretionary cases. In future, a progressive move to electronic marking may make it possible to retain copies of all marked assessments.

Response: We agree that provision of the sample of coursework answers would be useful. Though electronic marking is not yet widely used, unmarked electronic copies of most coursework are available on the VLE.

Action: *We will provide sample copies of marked coursework next year.*

Dissertations

Comment: The range of subjects offered for the project modules is excellent. I understand that virtually all students obtain one of their top 3 choices of subject area. In general, projects are suitably challenging for the heavy weighting applied (40 credits in most cases). I read one report where the amount of work carried out and the intellectual content seemed very low, although the topic could have been taken much further. Assessment of this project highlighted a concern about the current criteria: an assessment focused on the quality of the report cannot easily reflect the variation in the level of challenge of the project as conducted. The 'performance' mark is the major place where this can be considered. I recommend that the performance marking criteria should be reviewed.

Response: We agree that these criteria should be reviewed.

Action: *Variation in the performance mark has been highlighted to staff as a concern at an Academic Staff Meeting. Performance marking criteria will be reviewed and clarified for the next academic year*

Comment: An effective administrative system is in place to deal with cases where first and second markers disagree in their initial assessment of the report. This leads to mark adjustment by one or both markers, or occasionally to the involvement of a third marker. A current deficiency is in the written justification for any change of mark. I recommend that the module manager should not accept changes without adequate justification. A good test would be to imagine the student reviewing how his/her project was assessed and to consider whether they would be happy with the argument provided.

Response: We agree

Action: *We will reiterate to staff the importance of clear written justification for changes of mark, and this process will be overseen by the module manager.*

Administrative arrangements

Comment: I attended the exam board meeting on 20 June. The whole process ran very smoothly, I was satisfied with the outcomes. The timing of the meeting this year gave me adequate time to carry out my duties effectively. My only concern was that neither the Pro-Dean for Student Education nor the Director of Undergraduate Student Education attended. This sends an unfortunate signal, I believe.

Response: We agree that attendance of one Faculty officer would be useful, though clashes with meetings in other Schools may mean this is not possible.

Action: *This comment will be passed on.*

Other comments

Comment: With the Zoology and Genetics external examiners, I met with a small group of current undergraduates in March. They were overwhelmingly positive about the course and the staff (both academic and support). They raised a few issues:

At Level 1, more explanation of the 'need to know' would be helpful for some modules.

At Level 2, more help in preparing for the style of examinations would be appreciated, because of the difficult transition from Level 1 MCQs. Students were also unhappy with the use of group-work marks for individual assessment, particularly in the Animal Physiology module. Demonstrators for some practical classes, specifically in bioinformatics, should be better prepared. Some felt that the experimental design and data analysis module should be a pre-requisite for the Level 3 40 credit project.

At Level 3, there had been a problem with the 'Bats' module examination paper. I looked at the potential impact of this on individual students and found no evidence that it influenced marks.

I asked students whether they thought a synthetic 'honours' exam was a good idea and they were positive about this potential addition.

Response: We thank the External Examiner (and indirectly the students concerned) for this input. A synthetic 'honours' exam does not fit well with the current examination timetable – the year structure is currently under discussion at University level.

Action: *Comments relating to specific years/modules will be passed on to the teaching staff concerned. Preparation for level 2 examinations is an important issue and is addressed above (Matters for Urgent Attention). Whether the data analysis module should be compulsory for Biologists will be discussed with the programme team.*



3 October 2012

Dear

EXTERNAL EXAMINER REPORT 2011/12: BSc Biology

Many thanks for your efforts during your final year and your thorough and constructive report on the programme. Your response is comprehensive and so I shall not reiterate many of the points raised here. It is especially pleasing from your report that you find the range of teaching and assessment excellent with generally good balance between coursework and unseen examinations but I do share your concern that pathways do exist via strategic module choice where students can minimise their exposure to unseen examinations, and this should be reconsidered for the future.

Regarding your comments on check marking and annotation of decisions where an agreed mark is recorded, I have identified strategies to help alleviate your concerns in future. We have drafted a new procedure, to be implemented in all programmes, where mark adjustment can be applied by exam boards where there is a strong academic case for this to occur. The process allows for both increases and decreases in module or module element marks so that the outcome appropriately reflects the academic capability of the students. All examination officers have been briefed on how and when such a process is to be used which should help mitigate for the module mark variation which you have observed. In addition, as you state, it is important that the examination board in June of 2013 are aware of low/high scoring 2nd year modules when considering student degree classification.

I would like to thank you for all your constructive comments during your extended tenure and especially those associated with module mark variation and those that commend the efforts of staff to maintain the quality and breadth of the programme through difficult times over the last few years.

With best wishes,

Faculty Director of Undergraduate Student Education

Enc